

1                   **IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

2   Application Serial No. ....09/945,369  
3   Filing Date ..... 08/31/2001  
4   Inventorship ..... Tjong et al.  
5   Applicant..... Microsoft Corporation  
6   Group Art Unit .....2154  
7   Examiner ..... Joo, Joshua  
8   Attorney's Docket No. .... MSI-921US

9   Title: Point-to-Point Data Communication Implemented with Multipoint Network  
10       Data Communication Components

11                   **APPEAL BRIEF**

12   To:       MS: Appeal Brief - Patents  
13           Commissioner for Patents  
14           P.O. Box 1450  
15           Alexandria, VA 22313-1450

16   From:     David A. Morasch       Tel. 509-324-9256 ext. 210  
17                                       Fax 509-323-8979  
18           **Customer # 22801**

19               Pursuant to 37 C.F.R. §41.37, Appellant hereby submits an Appeal Brief  
20   for Application No. 09/945,369 filed August 8, 2001. A Notice of Appeal was filed  
21   February 1, 2006. Accordingly, Appellant appeals to the Board of Patent Appeals  
22   and Interferences seeking review of the Examiner's rejections.  
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1                   **(i) REAL PARTY IN INTEREST**

2           The real party in interest is the Microsoft Corporation, the assignee of all  
3 right and title to the subject invention.

4  
5                   **(ii) RELATED APPEALS AND INTERFERENCES**

6           Appellant is not aware of any other appeals or interferences which will  
7 directly affect, be directly affected by, or otherwise have a bearing on the Board's  
8 decision to this pending appeal.

9  
10                   **(iii) STATUS OF CLAIMS**

11       Allowed Claims:   No claims have been allowed.

12       Canceled Claims:   Claims 15-31 and 45-58 were previously canceled.

13       Amended Claims:   Claims 1-3, 5-14, and 32-44 have been previously  
14 amended.

15       Pending Claims:    Claims 1-14 and 32-44 stand rejected and are pending  
16 in this Application as set forth in the Claims Appendix on page 14.

17       Appealed Claims:   All of the pending claims are subject to this appeal and  
18 stand rejected under 35 U.S.C. §103(a) for obviousness over the Background of  
19 Appellant's Specification (hereinafter, "Background") in view of U.S. Patent  
20 No. 6,233,619 to Narisi et al. (hereinafter, "Narisi").

1                    **(iv) STATUS OF AMENDMENTS**

2                    A Final Office Action was issued on October 4, 2005 whereupon Appellant  
3                    filed a Response on November 29, 2005 to address the 35 U.S.C. §103 rejection of  
4                    pending claims 1-14 and 32-44. Claims 1, 9-14, and 32 were amended in the  
5                    Response.

6                    An Advisory Action was issued on January 13, 2006 dismissing  
7                    Appellant's traversal and maintaining the rejection of the pending claims 1-14 and  
8                    32-44.

9                    Appellant filed a Notice of Appeal on February 1, 2006 in response to the  
10                    Advisory Action and the Final Office Action.

1            **(v) SUMMARY OF CLAIMED SUBJECT MATTER**

2            Following is a concise explanation of each independent claim 1 and 32  
3            which includes specification references and exemplary drawing reference  
4            characters. As explained, the independent claims are not limited solely to the  
5            elements identified by the reference characters.

6  
7            Claim 1 is directed to a data communication system (500; Fig. 5)  
8            configured to communicatively link a host device (502) and a remote client  
9            device (504) with a point-to-point data communication link (506), the host device  
10           (502) and the remote client device (504) each configured for multipoint data  
11           communication over a distributed network. The data communication system (500)  
12           includes a remote data communication interface driver (530) of the host device  
13           (502) implemented in the remote client device (504), the remote data  
14           communication interface driver (530) configured to communicatively link with a  
15           data communication interface (520) of the host device (502) via the point-to-point  
16           data communication link (506). The data communication system (500) also  
17           includes a virtual driver component (528) configured to communicate with the  
18           remote data communication interface driver (530) and the remote client device  
19           (504), and includes a virtual network (532) configured to communicatively link  
20           the remote data communication interface driver (530) and the virtual driver  
21           component (528) in the remote client device (504).

22           With reference to Fig. 5, Appellant describes that a Remote NDIS miniport  
23           driver layer (530) of a host computing device (502) is implemented in a client  
24           device (504) (instead of in the host computing device) which facilitates a  
25           point-to-point communication link (506) between the two devices without having

1 to configure the host computing device (502) with interface components to  
2 communicate with the client device (504). The host computing device (502) can  
3 be communicatively linked with any mobile client device without having driver(s)  
4 for a particular device installed on the host computing device (*Specification* p.14,  
5 lines 8-16; Fig. 5).

6  
7 Claim 32 is directed to a method (Fig. 7) for implementing a point-to-point  
8 data communication link (506; Fig. 5) between computing devices. The method is  
9 described with reference to Fig. 7 in the specification on page 17, line 7 to  
10 page 19, line 5. The method includes implementing a remote network  
11 communication component (530) of a host computing device (502) in a remote  
12 client computing device (504), the remote network communication component  
13 (530) designed for data communication over a distributed network (block 700;  
14 *Specification* p.17, lines 14-22). Appellant describes that the Remote NDIS  
15 miniport driver layer (530) (implemented in the remote client device) is  
16 communicatively linked with the Remote NDIS component (520) at host  
17 computing device (502) via the point-to-point communication link (506)  
18 (*Specification* p.17, lines 20-22).

19 The method also includes implementing a connection interface (534, 536)  
20 to couple the remote network communication component (530) with the host  
21 computing device (502) (block 702; *Specification* p.17, line 23 to p.18, line 5).  
22 The method also includes implementing a virtual network (532) to  
23 communicatively link the remote network communication component (530) and a  
24 virtual driver component (528) of the remote client computing device (504)  
25 (block 704; *Specification* p.18, lines 6-10). Appellant describes that virtual LAN

1 (532) communicatively links the Remote NDIS miniport driver layer (530) and the  
2 virtual miniport driver layer (528) at client device (504) (*Specification* p.18,  
3 lines 8-10).  
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1           **(vi) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

2           The rejection of all pending claims 1-14 and 32-44 which stand rejected  
3           under 35 U.S.C. §103(a) for obviousness over the Background of Appellant's  
4           Specification (hereinafter, "Background") in view of U.S. Patent No. 6,233,619 to  
5           Narisi et al. (hereinafter, "Narisi") as set forth in the Final Office Action dated  
6           October 4, 2005.

7  
8           **(vii) ARGUMENT**

9  
10          **(A) Narisi and/or the Background do not teach or suggest a remote**  
11          **data communication interface driver of a host device**  
12          **implemented in a remote client device.**

13  
14          **Claims 1-14 and 32-44**

15          For example, Claim 1 recites (in part):

16               A data communication system configured to communicatively link a  
17               host device and a remote client device with a point-to-point data  
18               communication link, the host device and the remote client device each  
19               configured for multipoint data communication over a distributed network,  
20               the data communication system comprising:

21               **a remote data communication interface driver of the host device**  
22               **implemented in the remote client device,** the remote data communication  
23               interface driver configured to communicatively link with a data  
24               communication interface of the host device via the point-to-point data  
25               communication link; ...

1 Appellant submits that Narisi and/or the Background do not teach or  
2 suggest “a remote data communication interface driver of the host device  
3 implemented in the remote client device”, as recited in claim 1.

4 With reference to Fig. 5, Appellant describes that a Remote NDIS miniport  
5 driver layer (530) of a host computing device (502) is implemented in a client  
6 device (504) (instead of in the host computing device) which facilitates a  
7 point-to-point communication link (506) between the two devices without having  
8 to configure the host computing device with interface components to communicate  
9 with the client device. The host computing device can be communicatively linked  
10 with any mobile client device without having driver(s) for a particular device  
11 installed on the host computing device (*Specification* p.14, lines 8-16; Fig. 5).

12 In the Background with reference to Fig. 4, Appellant describes a  
13 computing device (402) that includes a Remote NDIS miniport driver layer (414),  
14 and the computing device (402) is connected to a remote device (408) via a USB  
15 connection (*Background* p.6, lines 14-15; Fig. 4). The Examiner “interprets the  
16 computing device of Applicant’s Background [Fig. 4] as the client device, and the  
17 remote device of Applicant’s Background as the host device” (*Final Office Action*  
18 p.12, ¶45). This interpretation is incorrect which leads to an incorrect conclusion  
19 that “a remote data communication interface driver of the host device  
20 implemented in the client device” (as recited in claim 1) is described in the  
21 Background (*Final Office Action* p.12). The Office cites to the Detailed  
22 Description in the specification at page 14, lines 8-10 and makes a comparison to  
23 the Background at page 6, lines 14-15 (*Final Office Action* pp. 11-12).

24 The Office’s interpretation of the Background Fig. 4 that the computing  
25 device is the client device, and that the remote device is the host device is

incorrect because the Background is described with reference to Figs. 1-4, each of which include a computing device (e.g., host computing device) having communication components to communicate with client or remote devices via a communication link.

Fig.1 includes a host computing device (102) for conventional point-to-point communication with a client device (104) via a serial connection between serial ports of the two devices (*Background* p.3, lines 15-17). Similarly, Fig. 2 includes a host computing device (202) for point-to-point communication with a client device (204) via a point-to-point USB connection (*Background* p.3, lines 15-17).

Fig. 3 includes a computing device (302) having multipoint network data communication components for communication with network-connected device(s) via a LAN (310) (*Background* p.4, lines 12-14; p.6, lines 4-5). Fig. 4 includes the computing device (402) having the Remote NDIS miniport driver layer (414) for communication with remote device (408) via a USB connection (*Background* p.6, lines 14-15; Fig. 4).

Accordingly, and contrary to the Office's interpretation, the computing device (402) in Fig. 4 is the host computing device and the remote device (408) is the client device. The Background describes that a host computing device can include a Remote NDIS miniport driver layer (414). Only the Detailed Description then describes the claimed subject matter which includes implementing a host computing device's Remote NDIS driver layer in an external device (e.g., a client, a remote device, a portable device, and the like) (*Specification* p.10, line 19 to p.11, line 7; p.14, lines 8-16).

Further, claim 1 clearly states that the client device is a *remote* client device which includes a host computing device's Remote NDIS driver layer. For example, Fig. 5 illustrates a host computing device (502) and a remote client device (504) which includes the Remote NDIS miniport driver layer (530) of the host computing device (502) (*see Specification* p.14, lines 8-16 for examples of a remote client device). As described, an advantage to having remote devices implemented with a Remote NDIS miniport driver layer of a host computing device is that the host computing device does not need to then have the various and different driver(s) for the remote devices installed, but can still be communicatively linked with any number of the mobile client devices (*Specification* p.16, lines 6-12; Fig. 6).

For at least these reasons, Narisi and/or the Background do not teach or suggest "a remote data communication interface driver of the host device implemented in the remote client device", as recited in claim 1.

Accordingly, independent claims 1 and 32 are allowable over the Background-Narisi combination and Appellant respectfully requests that the §103 rejection be withdrawn. Given that claims 2-14 depend from claim 1, and that claims 33-44 depend from claim 32, Appellant submits that these dependent claims are likewise allowable over the Background-Narisi combination and respectfully requests that the §103 rejection be withdrawn.

(B) Narisi and/or the Background do not teach or suggest a remote data communication interface driver (of a host device implemented in a remote client device) to communicatively link with a data communication interface of the host device.

Claims 1-14 and 32-44

For example, Claim 1 recites (in part):

...  
a remote data communication interface driver of the host device implemented in the remote client device, the remote data communication interface driver configured to communicatively link with a data communication interface of the host device via the point-to-point data communication link; ...

Appellant submits that Narisi and/or the Background do not teach or suggest “the remote data communication interface driver configured to communicatively link with a data communication interface of the host device”, as recited in claim 1. The Office merely cites to the Background Fig. 4 for the host computing device (402) which includes a Remote NDIS miniport driver layer (414) to communicate with a remote device (408) (*Office Action* p.2, ¶4).

As described above in Argument A, Appellant describes in the Background with reference to Fig. 4, a computing device (402) that includes a Remote NDIS miniport driver layer (414), and the computing device (402) is connected to a remote device (408). There is no indication in Fig. 4 or elsewhere in the Background of a remote data communication interface driver of the computing device (402) being implemented in the remote device (408), as described in claim 1. Clearly then, Narisi and/or the Background do not teach or suggest “the

1 remote data communication interface driver” – in a remote client device –  
2 “configured to communicatively link with a data communication interface of the  
3 host device”, as recited in claim 1.

4 Accordingly, independent claims 1 and 32 (in combination with dependent  
5 claim 33) are allowable over the Background-Narisi combination for at least these  
6 reasons and Appellant respectfully requests that the §103 rejection be withdrawn.  
7 Given that claims 2-14 depend from claim 1, and that claims 33-44 depend from  
8 claim 32, Appellant submits that these dependent claims are likewise allowable over  
9 the Background-Narisi combination and respectfully requests that the §103 rejection  
10 be withdrawn.

11  
12 **Conclusion**

13 Appellant respectfully requests that the 35 U.S.C. §103 rejection of all  
14 pending claims 1-14 and 32-44 be overturned and that the pending claims be  
15 allowed to issue.

16  
17 Respectfully Submitted,

18  
19 Dated: May 1, 2006

20 By: 

21 David A. Morasch  
22 Lee & Hayes, PLLC  
23 Reg. No. 42,905  
24 (509) 324-9256 x 210  
25

**(viii) CLAIMS APPENDIX**

1  
2       **1. (previously presented)** A data communication system  
3 configured to communicatively link a host device and a remote client device with  
4 a point-to-point data communication link, the host device and the remote client  
5 device each configured for multipoint data communication over a distributed  
6 network, the data communication system comprising:

7           a remote data communication interface driver of the host device  
8 implemented in the remote client device, the remote data communication interface  
9 driver configured to communicatively link with a data communication interface of  
10 the host device via the point-to-point data communication link;

11           a virtual driver component configured to communicate with the remote data  
12 communication interface driver and the remote client device; and

13           a virtual network configured to communicatively link the remote data  
14 communication interface driver and the virtual driver component in the remote  
15 client device.  
16

17       **2. (previously presented)** A data communication system as recited  
18 in claim 1, wherein the remote data communication interface driver is a Remote  
19 Network Driver Interface Specification (NDIS) driver and the data communication  
20 interface is a Remote NDIS component configured to communicate with the  
21 Remote NDIS driver via the point-to-point data communication link.  
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1           **3. (previously presented)** A data communication system as recited  
2 in claim 1, wherein the remote data communication interface driver is a Remote  
3 Network Driver Interface Specification (NDIS) driver and the data communication  
4 interface is a Remote NDIS component configured to communicate Remote NDIS  
5 messages with the Remote NDIS driver via the point-to-point data communication  
6 link.

7  
8           **4. (original)** A data communication system as recited in claim 1,  
9 wherein the virtual network is a local area network.

10  
11           **5. (previously presented)** A data communication system as recited  
12 in claim 1, wherein the remote data communication interface driver is a Remote  
13 Network Driver Interface Specification (NDIS) driver configured to communicate  
14 with the virtual driver component via the virtual network.

15  
16           **6. (previously presented)** A data communication system as recited  
17 in claim 1, wherein the remote data communication interface driver is a Remote  
18 Network Driver Interface Specification (NDIS) driver configured to communicate  
19 Remote NDIS messages with the virtual driver component via the virtual network.  
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1           **7. (previously presented)** A data communication system as recited  
2 in claim 1, wherein the remote data communication interface driver is a Remote  
3 Network Driver Interface Specification (NDIS) driver and the data communication  
4 interface is a Remote NDIS component configured to communicate with the  
5 Remote NDIS driver via the point-to-point data communication link, and the  
6 Remote NDIS driver is configured to communicate with the virtual driver  
7 component via the virtual network.

8  
9           **8. (previously presented)** A data communication system as recited  
10 in claim 1, wherein the remote data communication interface driver is a Remote  
11 Network Driver Interface Specification (NDIS) driver and the data communication  
12 interface is a Remote NDIS component configured to communicate Remote NDIS  
13 messages with the Remote NDIS driver via the point-to-point data communication  
14 link, and the Remote NDIS driver is configured to communicate the Remote NDIS  
15 messages with the virtual driver component via the virtual network.

16  
17           **9. (previously presented)** A data communication system as recited  
18 in claim 1, further comprising a connection interface configured to couple the  
19 point-to-point data communication link with the remote client device.

20  
21           **10. (previously presented)** A data communication system as recited  
22 in claim 1, further comprising a Universal Serial Bus data communication  
23 interface configured to couple the point-to-point data communication link with the  
24 remote client device.  
25

1           **11. (previously presented)** A data communication system as recited  
2 in claim 1, further comprising a 1394 bus data communication interface  
3 configured to couple the point-to-point data communication link with the remote  
4 client device.

5  
6           **12. (previously presented)** A data communication system as recited  
7 in claim 1, further comprising a wireless data communication interface configured  
8 to couple the point-to-point data communication link with the remote client  
9 device.

10  
11           **13. (previously presented)** A data communication system as recited  
12 in claim 1, further comprising a Bluetooth data communication interface  
13 configured to couple the point-to-point data communication link with the remote  
14 client device.

15  
16           **14. (previously presented)** A data communication system as recited  
17 in claim 1, further comprising an infrared data communication interface  
18 configured to couple the point-to-point data communication link with the remote  
19 client device.

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21           **15-31. (canceled)**  
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1           **32. (previously presented)** A method for implementing a  
2 point-to-point data communication link between computing devices, the method  
3 comprising:

4           implementing a remote network communication component of a host  
5 computing device in a remote client computing device, the remote network  
6 communication component designed for data communication over a distributed  
7 network;

8           implementing a connection interface to couple the remote network  
9 communication component with the host computing device; and

10          implementing a virtual network to communicatively link the remote  
11 network communication component and a virtual driver component of the remote  
12 client computing device.

13  
14           **33. (previously presented)** A method as recited in claim 32, wherein  
15 implementing the remote network communication component includes  
16 implementing a data communication interface driver to communicatively link with  
17 a data communication interface of the host computing device via the point-to-point  
18 data communication link.

19  
20           **34. (previously presented)** A method as recited in claim 32, wherein  
21 implementing the remote network communication component includes  
22 implementing a Remote Network Driver Interface Specification (NDIS) driver to  
23 communicatively link with a Remote NDIS component of the host computing  
24 device via the point-to-point data communication link.

1           **35. (previously presented)** A method as recited in claim 32, wherein  
2 implementing the remote network communication component includes  
3 implementing a Remote Network Driver Interface Specification (NDIS) driver to  
4 communicate Remote NDIS messages with a Remote NDIS component of the host  
5 computing device via the point-to-point data communication link.

6  
7           **36. (previously presented)** A method as recited in claim 32, wherein  
8 implementing the connection interface includes providing a point-to-point data  
9 communication protocol interface.

10  
11           **37. (previously presented)** A method as recited in claim 32, wherein  
12 implementing the connection interface includes providing a Universal Serial Bus  
13 data communication interface.

14  
15           **38. (previously presented)** A method as recited in claim 32, wherein  
16 implementing the connection interface includes providing a 1394 bus data  
17 communication interface.

18  
19           **39. (previously presented)** A method as recited in claim 32, wherein  
20 implementing the connection interface includes providing a wireless data  
21 communication interface.  
22  
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1           **40. (previously presented)** A method as recited in claim 32, wherein  
2 implementing the connection interface includes providing a Bluetooth data  
3 communication interface.

4  
5           **41. (previously presented)** A method as recited in claim 32, wherein  
6 implementing the connection interface includes providing an infrared data  
7 communication interface.

8  
9           **42. (previously presented)** A method as recited in claim 32, wherein  
10 implementing the virtual network includes providing a virtual local area network.

11  
12           **43. (previously presented)** A method as recited in claim 32, wherein  
13 implementing the remote network communication component includes  
14 implementing a Remote Network Driver Interface Specification (NDIS) driver,  
15 and wherein implementing the virtual network includes providing a virtual local  
16 area network to communicate Remote NDIS messages between the Remote NDIS  
17 driver and the virtual driver component.

1           **44. (previously presented)** A method as recited in claim 32, wherein  
2 implementing the remote network communication component includes  
3 implementing a Remote Network Driver Interface Specification (NDIS) driver to  
4 communicate Remote NDIS messages with a Remote NDIS component of the host  
5 computing device via the point-to-point data communication link, and wherein  
6 implementing the virtual network includes implementing a virtual local area  
7 network to communicate the Remote NDIS messages between the Remote NDIS  
8 driver and the virtual driver component.

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10           **45-58. (canceled)**  
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1        **(ix) EVIDENCE APPENDIX**

2        None.

3  
4        **(x) RELATED PROCEEDINGS APPENDIX**

5        None.